

Environmental Protection Agency
Pt. 82, Subpt. A, App. F

* temporarily categorized as Article 5 pending submission of ODS consumption data

[79 FR 16687, Mar. 26, 2014]

APPENDIX F TO SUBPART A OF PART 82—LISTING OF OZONE-DEPLETING CHEMICALS

Controlled substance	ODP	AT L	CLP	BLP
A. Class I:				
1. Group I:				
CFC ₁ -Trichlorofluoromethane (CFC-11)	1.0	60.0	1.0	0.00
CF ₂ Cl ₂ -Dichlorodifluoromethane (CFC-12)	1.0	120.0	1.5	0.00
C ₂ F ₃ Cl ₃ -Trichlorotrifluoroethane (CFC-113)	0.8	90.0	1.11	0.00
C ₂ F ₄ Cl ₂ -Dichlorotetrafluoroethane (CFC-114)	1.0	200.00	1.8	0.00
C ₂ F ₅ Cl-Monochloropentafluoroethane (CFC-115)	0.6	400.0	2.0	0.00
All isomers of the above chemicals			[Reserved]	
2. Group II:				
CF ₂ ClBr-Bromochlorodifluoromethane (Halon-1211)	3.0	12	0.06	0.13
.....		-18	-.08	-.03
CF ₃ Br-Bromotrifluoromethane (Halon-1301)	10.0	72	0.00	1.00
.....		-107		
C ₂ F ₄ Br ₂ -Dibromotetrafluoroethane (Halon-2402)	6.0	23	0.00	0.30
.....		-28		-.37
All isomers of the above chemicals			[Reserved]	
3. Group III:				
CF ₃ Cl-Chlorotrifluoromethane (CFC-13)	1.0	120	0.88	0.00
.....	-250	-1.83		
C ₂ FCl ₅ - (CFC-111)	1.0	60	1.04	0.00
.....	-90	-1.56		
C ₂ F ₂ Cl ₄ - (CFC-112)	1.0	60	0.90	0.00
.....	-90	-1.35		
C ₃ FCl ₇ - (CFC-211)	1.0	100	1.76	0.00
.....	-500	-8.81		
C ₃ F ₂ Cl ₆ - (CFC-212)	1.0	100	1.60	0.00
.....	-500	-7.98		
C ₃ F ₃ Cl ₅ - (CFC-213)	1.0	100	1.41	0.00
.....	-500	-7.06		
C ₃ F ₄ Cl ₄ - (CFC-214)	1.0	100	1.20	0.00
.....	-500	-6.01		
C ₃ F ₅ Cl ₃ -(CFC-215)	1.0	100	0.96	0.00
.....	-500	-4.82		
C ₃ F ₆ Cl ₂ - (CFC-216)	1.0	100	0.69	0.00
.....	-500	-3.45		
C ₃ F ₇ Cl- (CFC-217)	1.0	100	0.37	0.00
.....	-500	-1.87		
All isomers of the above chemicals			[Reserved]	
4. Group IV:				
CCl ₄ -Carbon Tetrachloride	1.1	50.0	1.0	0.00
5. Group V:				
C ₂ H ₃ Cl ₃ -1,1,1 Trichloroethane (Methyl chloroform)	0.1	6.3	0.11	0.00
All isomers of the above chemical except 1,1,2-trichloroethane			[Reserved]	
6. Group VI:				
CH ₃ Br-Bromomethane (Methyl Bromide)	0.7		[Reserved]	
7. Group VII:				
CHFBr ₂	1.00		[Reserved]	
CHF ₂ Br-(HBFC-22B1)	0.74		[Reserved]	
CH ₂ FBr	0.73		[Reserved]	
C ₂ HFBr ₄	0.3-0.8		[Reserved]	
C ₂ HF ₂ Br ₃	0.5-1.8		[Reserved]	
C ₂ HF ₃ Br ₂	0.4-16		[Reserved]	
C ₂ HF ₅ Br	0.7-1.2		[Reserved]	
C ₂ H ₂ FBri ₃	0.1-1.1		[Reserved]	
C ₂ H ₂ F ₂ Br ₂	0.2-1.5		[Reserved]	
C ₂ H ₂ F ₃ Br	0.7-1.6		[Reserved]	
C ₂ H ₃ FBri ₂	0.1-1.7		[Reserved]	
C ₂ H ₃ F ₂ Br	0.2-1.1		[Reserved]	
C ₂ H ₄ FBr	0.07-0.1		[Reserved]	
C ₃ HFBr ₆	0.3-1.5		[Reserved]	
C ₃ HF ₂ Br ₅	0.2-1.9		[Reserved]	
C ₃ HF ₃ Br ₄	0.3-1.8		[Reserved]	
C ₃ HF ₅ Br ₃	0.5-2.2		[Reserved]	
C ₃ HF ₅ Br ₂	0.9-2.0		[Reserved]	

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C ₃ HF ₆ Br	0.7-3.3	[Reserved]	
C ₃ H ₂ FB ₃	0.1-1.9	[Reserved]	
C ₃ H ₂ F ₂ Br ₄	0.2-2.1	[Reserved]	
C ₃ H ₂ F ₃ Br ₃	0.2-5.6	[Reserved]	
C ₃ H ₂ F ₄ Br ₂	0.3-7.5	.....	[Reserved]	
C ₃ H ₂ F ₅ Br	0.9-1.4	.....	[Reserved]	
C ₃ H ₃ FBR ₄	0.08-1.9	.....	[Reserved]	
C ₃ H ₃ F ₂ Br ₃	0.1-3.1	.....	[Reserved]	
C ₃ H ₃ F ₃ Br ₂	0.1-2.5	.....	[Reserved]	
C ₃ H ₃ F ₄ Br	0.3-4.4	.....	[Reserved]	
C ₃ H ₄ Br ₃	0.03-0.3	.....	[Reserved]	
C ₃ H ₄ F ₂ Br ₂	0.1-1.0	.....	[Reserved]	
C ₃ H ₄ F ₃ Br	0.07-0.8	.....	[Reserved]	
C ₃ H ₅ FB ₃	0.04-0.4	.....	[Reserved]	
C ₃ H ₅ F ₂ Br	0.07-0.8	.....	[Reserved]	
C ₃ H ₆ FB	0.02-0.7	.....	[Reserved]	
8. Group VIII:				
CH ₂ BrCl (Chlorobromomethane)	0.12	.....	[Reserved]	
B. Class II:				
CHFCl ₂ -Dichlorofluoromethane (HCFC-21)	[Reserved]	2.1	0.03	0.00
CHF ₂ Cl-Chlorodifluoromethane (HCFC-22)	0.05	15.3	0.14	0.00
CH ₂ FCl-Chlorofluoromethane (HCFC-31)	[Reserved]	1.44	0.02	0.00
C ₂ HFCl ₄ - (HCFC-121)	[Reserved]	0.6	0.01	0.00
C ₂ HF ₂ Cl ₃ - (HCFC-122)	[Reserved]	1.4	0.02	0.00
C ₂ HF ₃ Cl ₂ - (HCFC-123)	0.02	1.6	0.016	0.00
C ₂ HF ₄ Cl- (HCFC-124)	0.02	6.6	0.04	0.00
C ₂ H ₂ FCl ₃ - (HCFC-131)	[Reserved]	4.0	0.06	0.00
C ₂ H ₂ F ₂ Cl ₂ - (HCFC-132b)	[Reserved]	4.2	0.05	0.00
C ₂ H ₂ F ₃ Cl- (HCFC-133a)	[Reserved]	4.8	0.03	0.00
C ₂ H ₃ FCl ₂ - (HCFC-141b)	0.12	7.8	0.10	0.00
C ₂ H ₃ F ₂ Cl- (HCFC-142b)	0.06	19.1	0.14	0.00
C ₃ HFCl ₆ - (HCFC-221)	[Reserved]	.....	.....	0.00
C ₃ HF ₂ Cl ₅ - (HCFC-222)	[Reserved]	.....	.....	0.00
C ₃ HF ₃ Cl ₄ - (HCFC-223)	[Reserved]	.....	.....	0.00
C ₃ HF ₄ Cl ₃ - (HCFC-224)	[Reserved]	.....	.....	0.00
C ₃ HF ₅ Cl ₂ - (HCFC-225ca)	[Reserved]	1.5	0.01	0.00
(HCFC-225cb) .....	.....	-1.7	.....
C ₃ HF ₆ Cl- (HCFC-226)	[Reserved]	5.1	0.04	0.00
C ₃ H ₂ FCl ₅ - (HCFC-231)	[Reserved]	.....	.....	0.00
C ₃ H ₂ F ₂ Cl ₄ - (HCFC-232)	[Reserved]	.....	.....	0.00
C ₃ H ₂ F ₃ Cl ₃ - (HCFC-233)	[Reserved]	.....	.....	0.00
C ₃ H ₂ F ₄ Cl ₂ - (HCFC-234)	[Reserved]	.....	.....	0.00
C ₃ H ₂ F ₅ Cl- (HCFC-235)	[Reserved]	.....	.....	0.00
C ₃ H ₃ FCl ₄ - (HCFC-241)	[Reserved]	.....	.....	0.00
C ₃ H ₃ F ₂ Cl ₃ - (HCFC-242)	[Reserved]	.....	.....	0.00
C ₃ H ₃ F ₃ Cl ₂ - (HCFC-243)	[Reserved]	.....	.....	0.00
C ₃ H ₃ F ₄ Cl- (HCFC-244)	[Reserved]	.....	.....	0.00
C ₃ H ₄ FCl ₃ - (HCFC-251)	[Reserved]	.....	.....	0.00
C ₃ H ₄ F ₂ Cl ₂ - (HCFC-252)	[Reserved]	.....	.....	0.00
C ₃ H ₄ F ₃ Cl- (HCFC-253)	[Reserved]	.....	.....	0.00
C ₃ H ₅ FCl ₂ - (HCFC-261)	[Reserved]	.....	.....	0.00
C ₂ H ₅ F ₂ Cl- (HCFC-262)	[Reserved]	.....	.....	0.00
C ₃ H ₆ FCl- (HCFC-271)	[Reserved]	.....	.....	0.00
All isomers of the above chemicals		[Reserved]		

[60 FR 24986, May 10, 1995, as amended at 68 FR 42894, July 18, 2003]

**APPENDIX G TO SUBPART A OF PART 82—
UNEP RECOMMENDATIONS FOR CONDITIONS APPLIED TO EXEMPTION FOR ESSENTIAL LABORATORY AND ANALYTICAL USES**

1. Essential laboratory and analytical uses are identified at this time to include equipment calibration; use as extraction solvents, diluents, or carriers for chemical analysis;

biochemical research; inert solvents for chemical reactions, as a carrier or laboratory chemical and other critical analytical and laboratory purposes. Pursuant to Decision XI/15 of the Parties to the Montreal Protocol, effective January 1, 2002 the following uses of class I controlled substances are not considered essential under the global laboratory exemption:

- a. Testing of oil and grease and total petroleum hydrocarbons in water;
- b. Testing of tar in road-paving materials; and